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ZB/2004/01812



# Sertifikaat

REPUBLIEK VAN SUID AFRIKA

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EN NYWERHEID

# Certificate

REPUBLIC OF SOUTH AFRICA

PATENT OFFICE  
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This is to certify that

the documents attached hereto are true copies of Forms P1, P2  
and provisional specification and drawing of South African Patent Application  
No. 2003/4403 in the name of Cubicice (Pty) Ltd



Filed

: 5 June 2003 ✓

Entitled

: A Method of Collecting

Data Regarding a

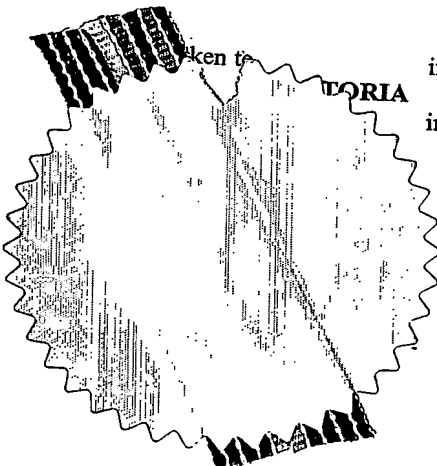
Plurality of Web Pages

visited by at Least

One User

## PRIORITY DOCUMENT

SUBMITTED OR TRANSMITTED IN  
COMPLIANCE WITH RULE 17.1(a) OR (b)



in die Republiek van Suid-Afrika, hierdie  
in the Republic of South Africa, this

23<sup>th</sup> dag van June 2004  
day of

Registrar of Patents

## OFFICIAL APPLICATION

21 01 2003/4403

LODGING DATE: PROVISIONAL

22 5 JUN 2003

ACCEPTANCE DATE

47

## INTERNATIONAL CLASSIFICATION

LODGING DATE: COMPLETE

GRANTED DATE

## FULL NAME(S) OF APPLICANT(S)/PATENTEE(S)

71 CUBICICE (PTY) LTD

## APPLICANTS SUBSTITUTED:

71

DATE REGISTERED

## ASSIGNEE(S)

71

DATE REGISTERED

## FULL NAME(S) OF INVENTOR(S)

72

1. LIVERSEDGE, STEVEN
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3. BOUGUENON, MEGAN

## PRIORITY CLAIMED

## COUNTRY

## NUMBER

## DATE

N.B. Use International  
abbreviation for country  
(see Schedule 4)

33

NIL

31

NIL

32

NIL

## TITLE OF INVENTION

54

A METHOD OF COLLECTING DATA REGARDING A PLURALITY OF WEB PAGES VISITED BY AT  
LEAST ONE USER

## ADDRESS OF APPLICANT(S)/PATENTEE(S)

BUILDING 10, FOURWAYS GOLF PARK, ROOS STREET, FOURWAYS, SANDTON, GAUTENG, SOUTH AFRICA

## ADDRESS FOR SERVICE

74

SPOOR &amp; FISHER, SANDTON

## S &amp; F REF

PA135435/P

## PATENT OF ADDITION NO.

## DATE OF ANY CHANGE

61

## FRESH APPLICATION BASED ON

## DATE OF ANY CHANGE

**APPLICATION FOR A PATENT**  
AND ACKNOWLEDGEMENT OF RECEIPT  
(Section 30 (1) - Regulation 22)

R 0060.00

The granting of a patent is hereby requested by the undermentioned applicant on the basis of the present application filed in duplicate  
HASR 711

21	01	2003/4403
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REPUBLIC OF SOUTH AFRICA  
S & F REFERENCE

PA135435/P

71	CUBICICE (PTY) LTD
----	--------------------

FULL NAME(S) OF APPLICANT(S)

	BUILDING 10, FOURWAYS GOLF PARK, ROOS STREET, FOURWAYS, SANDTON, GAUTENG, SOUTH AFRICA
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ADDRESS(ES) OF APPLICANT(S)

54	A METHOD OF COLLECTING DATA REGARDING A PLURALITY OF WEB PAGES VISITED BY AT LEAST ONE USER
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TITLE OF INVENTION

THE APPLICANT CLAIMS PRIORITY AS SET OUT ON THE ACCOMPANYING FORM P.2. THE EARLIEST PRIORITY CLAIM IS:  
COUNTRY: NIL NUMBER: NIL DATE: NIL

THIS APPLICATION IS FOR A PATENT OF ADDITION TO PATENT APPLICATION NO.

21	01	
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THIS APPLICATION IS A FRESH APPLICATION IN TERMS OF SECTION 37 AND IS BASED ON APPLICATION NO.

21	01	
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THIS APPLICATION IS ACCOMPANIED BY:

- ☒ 1. A single copy of a provisional specification of 9 pages.
- ☒ 2. Drawings of 1 sheet.
- ☐ 3. Publication particulars and abstract (Form P.8 in duplicate).
- ☐ 4. A copy of Figure of the drawings (if any) for the abstract.
- ☐ 5. Assignment of invention.
- ☐ 6. Certified priority document.
- ☐ 7. Translation of the priority document.
- ☐ 8. Assignment of priority rights.
- ☐ 9. A copy of the Form P.2 and the specification of S.A. Patent Application No.
- ☐ 10. Declaration and power of attorney on Form P.3.
- ☐ 11. Request for ante-dating on Form P.4.
- ☐ 12. Request for classification on Form P.9.
- ☒ 13. Form P.2 in duplicate.
- ☐ 14. Other.

74 ADDRESS FOR SERVICE: SPOOR &amp; FISHER, SANDTON

Dated: 5 June 2003

  
 SPOOR & FISHER  
 PATENT ATTORNEYS FOR THE APPLICANT(S)

RECEIVED
REGISTRAR OF PATENTS DESIGNS, TRADE MARKS AND COPYRIGHT
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REPUBLIC OF SOUTH AFRICA  
PATENTS ACT, 1978

## PROVISIONAL SPECIFICATION

(Section 30(1) – Regulation 27)

OFFICIAL APPLICATION NO.

21	01	2003/4403
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LODGING DATE

22	5 JUNE 2003
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FULL NAMES OF APPLICANTS

71	CUBICICE (PTY) LTD
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FULL NAMES OF INVENTORS

72	LIVERSEDGE, STEVEN BOUGUENON, VICTOR BOUGUENON, MEGAN
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TITLE OF INVENTION

54	A METHOD OF COLLECTING DATA REGARDING A PLURALITY OF WEB PAGES VISITED BY AT LEAST ONE USER
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# **BACKGROUND OF THE INVENTION**

THIS invention relates to a method of collecting data regarding a plurality of web pages visited by at least one user.

The present invention is in response to the business requirement to acquire and retain customers combined with a growing trend to use the Internet as a communication tool by way of e-mail and/or website. E-mails and websites are used by various businesses to interact with defined target markets. Businesses require as much information as possible indicating how specific individuals and target markets respond to initiatives to communicate through e-mail and websites.

Previously, e-mail and website owners have only been able to obtain data such as the number of visits to a website or to particular pages on the website. However, without the website user sharing information or accessing information on the hard-drive of a computer being used to view a website, further personal information about the user is not obtainable. Traditionally cookies stored on computers will only store information relating to the website.

This further information is desirable in that it provides demographic information and important website interaction information relating to the response of individuals, the target market and website users in general.

The present invention seeks to address this.

# SUMMARY OF THE INVENTION

According to the present invention there is provided a method of collecting data regarding a plurality of web pages visited by at least one user, the method comprising the steps of:

receiving, at a central server, identification data together with web page data, wherein the identification data identifies a unique website access point of a user, typically a computer and the web page data identifies a web page which the user has viewed;

storing the identification data and the web page data in a database;

storing personal data of a plurality of users, the personal data including at least the user's name and e-mail address;

receiving a request from a user to view a web page, the request including the e-mail address of the user and identification data identifying the website access point, typically a computer used by the user;

using the e-mail address and identification data from the request to retrieve the user's personal data and to link the web page data to the user; and

redirecting the user to the requested web page.

The invention further comprises sending an e-mail to a plurality of users, the e-mail including a link to further information available within the e-mail or alternatively a requested web page therein, wherein the request from the user to view the information or requested web page is generated by the user selecting the link.

Preferably, once the user has selected the link, the user's request is routed first to the central server before being redirected to the requested web page or alternatively information relating to clicking on the link is shared with the central server.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

**Figure 1**      The accompanying Figure is a schematic representation of the system within which the present invention operates.

### **DESCRIPTION OF AN EMBODIMENT**

Referring to the accompanying drawing, a user wishing to visit a website uses a computer typically in the form of a personal computer (PC) 10 to access, via the Internet 12, a web server 14. The web server 14 downloads a script onto the PC 10 typically in the form of a Java script to ascertain whether or not the PC has previously been used to access the server 14.

If the user has not accessed the web server 14, identification data in the form of an identification cookie is created and downloaded onto the PC 10. If an identification cookie exists, or after the identification cookie has been created, web page data together with the identification cookie data are transferred to a server 16 with an associated database 18.

The identification data and the web page data are stored in the database 18.

The script can be set up to identify when the web visitor uses the PC to access a website or more specifically when the user accesses one or more web pages contained in the website.

In either case, each time the user accesses the website or particular web pages, data is transmitted to the server 16 and stored together with the cookie identification data. In this manner, a history is built of what web pages are accessed by the web visitor. The server that hosts the invention is set up to track and report on defined websites and or web pages.

Practically, the abovementioned is implemented by inserting a tracking script into each web page which the website owner wishes to identify as having been visited. This tracking script is inserted into the web page from a downloaded application as an exe file from the server 16 and installed into each of the web pages on which tracking is required. The script is embedded into the web page, and is returned to the web visitors Internet browser, thus allowing the script to communicate with the server 16 every time a web page is served to a web visitor's Internet browser thus recording website interactivity against the identification cookie.

In addition, personal information is transmitted to the server 16 by a website owner or associated party. This additional information is in the form of personal data of a plurality of users which may be a plurality of customers of the website owner. The personal data at a minimum includes at least the user's name and email address but typically includes more information such as company information, designation, contact details such as fax, phone and postal address. Also included for each user are a contact type such as:

- Customer type A
- Customer type A
- Training type A
- Training type B
- Potential customer
- Partner
- Distributor
- Media
- E-mail newsletter A



E-mail newsletter B

Mailing list A

Mailing list B

It is possible for each contact to be included in more than one contact type. As will be described later, each contact also has the identification cookie number and web interaction history associated therewith.

In order to correlate web interaction history with personal information the following is carried out. Firstly, various e-mail correspondence is sent out to different contact types with the e-mail typically including some background information and then a link to a particular web page which the mail recipient is encouraged to visit.

For example, the e-mail may begin with an introduction about a particular product and then encourage the user to click on the link for further information or to purchase the product.

If the e-mail recipient clicks on the link, a request is received at the central server 16 to view the requested web page. The request includes the e-mail address of the recipient together with identification data identifying the computer of the user. The identification data takes the form of the identification cookie which has previously been placed on the user's computer.

Once the central server 16 receives the request, the central server uses the e-mail address and the identification cookie from the request to retrieve the user's personal data and to link the previously stored web page data to the user (e-mail recipient).

The user is then redirected to the requested web page.

In practice, this method is implemented by the website owner sending a request to the server 16 to insert a web page link into an e-mail. The

server 16 replaces the end destination link with a different link to re-route the request first to the server 16 before the request is redirected to the final destination.

It will be appreciated that the user's personal information can now be linked to their website history giving the website owner a complete picture rather than merely knowing that an anonymous user has been visiting their site on various occasions.

In essence known users are matched from the click through thereby identifying the cookie with the contact. Thereafter, the individual is traced as a known user, and the server 16 will be able to provide ongoing tracking and reporting.

The identification cookie described above is based on the domain name of the sender and not the entire URL of the sender. This is because if the URL changes or is typed in different case, a new cookie will be created based on a new URL.

It will be appreciated that a user's computer will in any event have a number of unique identification cookies thereon with each cookie being related to one of a number of domains.

The above methodology is used to collect data on both identified and unidentified website users which can then be reported to the business concerned in a number of different ways. Information which can be extrapolated includes the recency of visits, the latency of visits, the frequency of visits, individual pages accessed, demographics, user browser information, user clickstream paths, website interaction intervals, non-interaction by defined parties and link tracking reports. Information is also grouped according to contact list type or alternatively according to input page URL. The information is typically supplied from the central server 16 and database 18 to the business owner either by e-mail or by the business owner accessing the server 16 via the Internet, for example.

In any event, it will be appreciated that the information can provide business with information to satisfy the following needs:

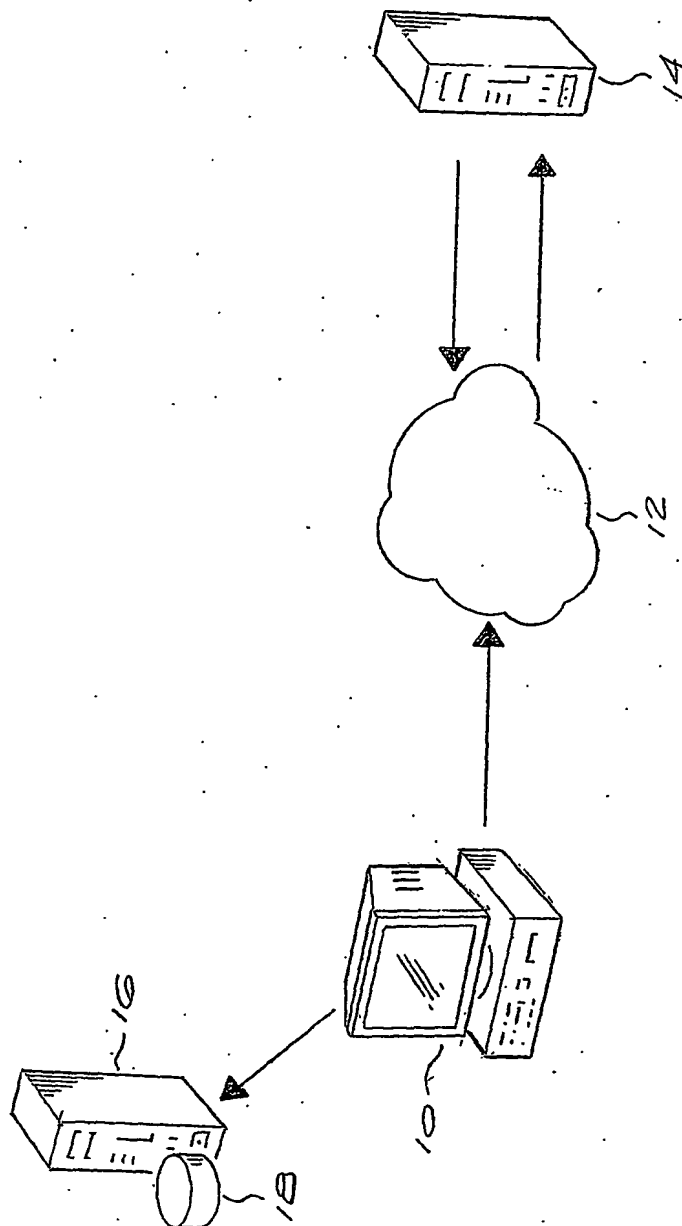
- Understand both individually and collectively how customers, known users and unidentifiable traffic interact with the web presence.
- Understand both individually and collectively how recipients respond to e-mail communications.
- The ability to identify sales opportunities via the website and email communication.
- Have an early warning system that identifies increased or decreased website interactivity (Effective website success measurement).
- Assistance in identifying customers who are most likely to respond to business offers.
- Insights into how defined user groups (customers etc.), or identified individuals are interacting with web content.
- The ability to respond quickly and effectively to insights gauged from web interactivity.
- The availability of the above insights throughout the organisation, e.g. sales, marketing, customer care, training, management etc.
- Assistance in streamlining costs and improving customer communications.
- Improved measurability and management of the sales and marketing processes.

In meeting these needs, the present invention provides the following key web interaction functions:

- The ability to identify and track individual customers or groups of customers to see how they interact with the web presence. (Click stream path and response to campaigns)
- The ability to link email communications to web interactivity in order to gauge individual responses.
- Extensive analysis and segmentation capabilities to provide effective user intelligence (both identified and unidentified users).
- Website interaction history based on user groups and individual users. Quickly and easily identify who has or has not interacted with the web presence or a specific section/page of the site. (The only way to effectively gauge website success)
- Provides a communication management facility by allowing organisations to establish their outward-bound email communications requirements.

DATED THIS 5<sup>TH</sup> DAY OF JUNE 2003

SPOOR & FISHER  
APPLICANT'S PATENT ATTORNEYS



*Handwritten signature*

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